

EXHIBIT 18

1
2 IN THE UNITED STATES DISTRICT COURT
3 FOR THE EASTERN DISTRICT OF TEXAS
4 SHERMAN DIVISION

5 Case No. 4:20-cv-00957-SD

6 -----x

7 THE STATE OF TEXAS, et al.,

8 Plaintiffs,

9
10 - against -

11 GOOGLE LLC,

12 Defendant.

13 -----x

14 October 8, 2024

15 9:09 a.m.

16 Videotaped Deposition of MATTHEW
17 WEINBERG, Ph.D., taken by Defendant,
18 pursuant to Notice, held at the offices of
19 Norton Rose Fulbright US LLP, 1301 Avenue
20 of the Americas, New York, New York, before
21 Todd DeSimone, a Registered Professional
22 Reporter and Notary Public of the State of
23 New York.

24
25 Job No. CS6918901

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2 statute, right?

3 A. That's correct.

4 Q. And are you aware, for example,
5 whether a court has ruled -- oh, also, are
6 you quantifying in your report in any way
7 the amount of harm caused to any ad buyer?
8 I mean a specific ad buyer.

9 A. No, I am not in my report
10 quantifying the amount of harm caused to a
11 specific ad buyer, that's correct.

12 Q. And are you quantifying in your
13 report the amount of harm caused to any
14 specific publisher?

15 A. That is also correct -- I'm
16 sorry, you didn't make an assertion. I am
17 not in my report quantifying the harm to
18 any specific publisher.

19 Q. And do you know of your own
20 knowledge whether, for example, a court in
21 Mississippi has ruled that the Mississippi
22 statute does not permit the imposition of
23 penalties without proof of harm?

24 MR. RENARD: Objection to the
25 form of the question.

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2 clean spiral-bound copies and I can give
3 you those so you don't have to flip pages.
4 Would you prefer?

5 A. I'm happy to use either.

6 Q. Well, I have these.

7 A. Ooh, yeah.

8 Q. Let's proceed. So paragraph 56
9 of your September report, do you see that?

10 A. Yes, I do.

11 Q. All right. And I'm going to
12 read that into the record and then we are
13 going to start having some conversation
14 about this, all right?

15 So paragraph 56, read along
16 with me, says "Using the Wiggins Report
17 Proposition, the Wiggins Report then
18 attempts to rebut the Andrien Report's
19 claim ('Deceptive Conduct Total Impact
20 Framework' or 'DTCI Framework') - which
21 relies on my Opening Report - that every
22 auction is affected by Google's Deceptive
23 Conduct ('Element A'), and (B) the impact
24 of that deception affects all revenue from
25 Google's display ad auctions ('Element

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2 B'). "

3 Do you see that?

4 A. Yes, I do.

5 Q. Now, just to be clear, the
6 deceptive conduct total impact framework is
7 Mr. Andrien's framework; is that right?

8 A. I would say that is the --
9 that's the framework he uses. I don't know
10 whether he possesses or created that
11 framework, but that was the framework he
12 uses.

13 Q. Okay. But it's not your
14 framework?

15 A. I don't know that I would call
16 it my framework or his framework. It is a
17 framework.

18 Q. Well, the framework appears,
19 according to paragraph 56, in the Andrien
20 report, right?

21 A. Yes, that's correct.

22 Q. And he claims you say -- it
23 says there that, (A), every auction is
24 affected by Google's deceptive conduct,
25 that's from your opening report, right?

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2 A. Sorry, can you repeat the
3 question? I'm going to parse it slowly.

4 Q. I'm just reading from your
5 paragraph 56. You say "Mr. Andrien relies
6 on my opening report." Do you see that?

7 A. Yes.

8 Q. That, (A), so is the language
9 that comes after (A) your opinion or
10 Mr. Andrien's opinion?

11 A. The language that comes after
12 (A), which says "every auction is affected
13 by Google's deceptive conduct," is my
14 opinion.

15 Q. All right. And what about the
16 language that comes after (B), is that your
17 opinion or Mr. Andrien's?

18 MR. RENARD: I object to the
19 form.

20 A. The language that comes after
21 Element B is not an opinion contained in my
22 reports because I do not -- it's not part
23 of my assignment. I do not quantify.

24 Q. Okay. So you have no opinion
25 and have expressed none that the impact of

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2 deception affected all revenue from

3 Google's display ad auctions, true?

4 A. I have opinions that might form
5 a basis for that, but that is not my own
6 stated opinion.

7 Q. You understand Mr. Andrien is
8 relying for opinions of yours to make that
9 determination?

10 MR. RENARD: Objection to form.

11 A. I understand that Mr. Andrien
12 is relying on my report, and I understand
13 that Element B is one of his
14 determinations, and I understand that
15 opinions in my report could be used as a
16 basis to conclude Element B.

17 Q. But Element B is not your own
18 conclusion?

19 A. That is correct. Element B is
20 not my own conclusion.

21 Q. And you have not, and do not
22 expect to, quantify the extent to which
23 deception affected any or all of Google's
24 revenues, true?

25 A. I do not intend to express an

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2 joined Google's ecosystem if every --
3 unless -- I'm sorry, if every detail of RPO
4 were not made public. I will again add as
5 context that the concept that bidders tend
6 to join simple auction environments is a
7 concept that is stated in the Milgrom
8 report, and that is not a controversial
9 opinion.

10 Q. Controversial or not, you
11 agree, you have not identified a single ad
12 buyer that would not have joined Google's
13 ad tech ecosystem if every detail of
14 reserve price optimization had been public?

15 A. I will again repeat the
16 context, is that my opinion is that bidders
17 in general tend to join simple ecosystems.
18 That opinion is stated in the Milgrom
19 report. That being said, I have not
20 identified a particular advertiser that I
21 know would not have joined Google's
22 ecosystem if RPO had been fully and
23 accurately disclosed.

24 Q. And the same question about
25 dynamic revenue sharing, have you

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2 identified any single ad buyer that would
3 not have joined Google's ecosystem if
4 dynamic revenue sharing had been disclosed
5 in every detail?

6 A. I will repeat the same context,
7 which is that it is generally accepted, as
8 stated in the Milgrom report, that bidders
9 tend to prefer ecosystems that are simple.
10 I will go ahead and read the quote this
11 time. The Milgrom report states "Google
12 recognized the advantages of bidder
13 truthful auctions, explaining them as
14 follows: It is faster, less costly, and
15 more fair to the less sophisticated
16 advertisers to structure the auction in
17 favor of true value. The lower transaction
18 costs associated with bidding in a bidder
19 truthful auction encourage advertisers to
20 participate on Google's platform, which
21 increases thickness, tending to improve the
22 efficiency of its allocations and increase
23 the prices paid to publishers."

24 That is the methodology by
25 which I draw my conclusions, but I will

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2 again state that I do not know of a
3 particular advertiser that I am confident
4 only joined Google's ecosystem because they
5 believed it to be bidder truthful.

6 Q. And the same questions about
7 Bernanke, context about what bidders in
8 general might do, you cannot tell the jury
9 as you sit here today that you are aware of
10 a single bidder that would not have joined
11 Google's ad tech ecosystem if every detail
12 of Bernanke had been disclosed, true?

13 A. That is again true, and I will
14 again repeat the same context, which is
15 from the Milgrom report states "Google
16 recognized the advantages of bidder
17 truthful auctions, explaining them as
18 follows: It is faster, less costly and
19 more fair to the less sophisticated
20 advertisers to structure the auction in
21 favor of true value. The lower transaction
22 costs associated with bidding in a bidder
23 truthful auction encourage advertisers to
24 participate on Google's platform."

25 And that is the methodology

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2 from which I draw my conclusions, although
3 as you asked, I do not know a particular
4 advertiser that I know for certain only
5 joined -- only used GDN because of Google's
6 deception.

7 Q. All right. And, similarly, you
8 made an assumption that what you called
9 default participants predominate in the
10 ecosystem; is that right?

11 MR. RENARD: Objection to the
12 form of the question.

13 A. I don't know that I would -- I
14 wouldn't phrase it that way.

15 Q. All right. Look at your errata
16 sheet, sir. Did you change one of your
17 observations about errata -- about default
18 participants in your errata sheet?

19 A. Sorry, can you rephrase the
20 question?

21 Q. Uh-huh. Did you change one of
22 your observations in your errata sheet
23 related to default participants
24 predominating?

25 A. What I changed was in paragraph

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2 Q. Nor are you arguing that it is
3 deceptive conduct for Google to keep its
4 source code proprietary?

5 MR. RENARD: Same objection.

6 A. I also do not intend to argue
7 that the decision to keep source code
8 confidential is itself a deceptive act.

9 Q. You also said, sir, that every
10 ad tech auction should be considered
11 deceptive during the period you considered,
12 right?

13 A. Let me just read an exact quote
14 to remove confusion. On page 43, section
15 header G, I say "Google's Deceptive Display
16 Advertising RTB Ecosystem Could Influence
17 Any Auction."

18 Q. I'm sorry, where are you again?

19 A. Sorry, the rebuttal report,
20 page 43, section header G. "Google's
21 Deceptive Display Advertising RTB Ecosystem
22 Could Influence Any Auction."

23 Q. Now, that use of "could" is of
24 interest to me because you did not prove
25 that any particular transaction was

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2 influenced by deceptive conduct as you
3 describe it, true?

4 MR. RENARD: I object to the
5 question, form.

6 A. Let me read a slightly
7 different quote --

8 Q. Can you answer my question
9 first?

10 A. Sure, I will answer the
11 question and follow it with a different
12 quote.

13 That is correct that I do not
14 find a particular transaction and assert
15 that this particular transaction had its
16 price increased by RPO when the advertiser
17 did not know or this particular transaction
18 had cleared in a dynamic region above the
19 advertiser's bid, or this particular
20 transaction was won by someone who would
21 not have been in Google's ecosystem but for
22 their deception. However, I do claim, this
23 is now section header B on page 21, where I
24 say "Google's Deceptive Conducts Impact the
25 Entirety of Google's Display Advertising

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2 RTB Ecosystem."

3 So while the particular section
4 header G had a "could," there was no
5 "could" in the section header B.

6 Q. Right. So I want to
7 distinguish, because what you say is it
8 impacted the entire ecosystem, true?

9 A. Yes, that's correct, I say that
10 it impacted the entire ecosystem.

11 Q. But you do not say, and you
12 have not demonstrated, that any particular
13 transaction was affected by reserve price
14 optimization, what you call RPO, true?

15 MR. RENARD: Objection to form.

16 A. I do not find any particular
17 impression that I know was impacted by the
18 deceptive elements of RPO, that is correct.

19 Q. And, similarly, you do not find
20 any particular transaction that was
21 affected by what you call the deceptive
22 elements of dynamic revenue sharing, true?

23 A. That is also correct, I do not
24 find particular impressions on which I know
25 they cleared in the dynamic region and

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2 would not have cleared but for Google's
3 deception.

4 Q. And when you are using the
5 phrase "Google's deception," just to be
6 clear, you are calling dynamic revenue
7 sharing deceptive, true?

8 A. Yes, I'm calling dynamic
9 revenue sharing deceptive.

10 Q. And, similarly, you do not find
11 any particular transaction that was
12 affected by what you call the deceptive
13 elements of Bernanke, true?

14 MR. RENARD: Objection to form.

15 A. I do not know any particular
16 impressions on which I know that a bidder
17 took suboptimal behavior due to the
18 deception surrounding Bernanke, that is
19 correct.

20 Q. Okay. Now, do you know the
21 identity of the advertisers bidding in the
22 AdX auctions?

23 MR. RENARD: Objection to form.

24 A. I know some advertisers that
25 bid. I do not know the identity of

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2 you say it was inappropriate?

3 A. An.

4 Q. An?

5 A. a-n.

6 Q. Okay. So simpler, you don't
7 have any difficulty with saying for
8 purposes of this discussion min CPM floor
9 is the reserve price that the publisher
10 sets for their ad space?

11 MR. RENARD: Objection to form.

12 A. I don't object to using that
13 term. I do want to note that I have seen
14 it used in a different context, and so it
15 may be -- it may be a confusing term to use
16 in hindsight.

17 Q. Okay. But when we talk about
18 reserve price optimization, the reserve
19 price that is being optimized in that
20 conduct is the min CPM floor, right?

21 A. The min CPM floor set by the
22 publisher, yes.

23 Q. Is what is optimized in reserve
24 price optimization?

25 A. Again, at a simple level, yes.

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2 A. Okay. Can I ask --

3 Q. Because I go step by step,
4 that's why.

5 A. Got it, okay. I guess I was
6 trying to ask whether I can put away
7 Exhibit 5. It sounds like you are saying
8 no, not yet.

9 Q. I wouldn't.

10 A. Okay.

11 Q. All right. So let's talk first
12 about that sentence, "In some cases the
13 auction may close at a price lower than the
14 reserve price applied due to auction
15 optimizations."

16 Do you see that?

17 A. Yes, I agree with that.

18 Q. So it says that the auction
19 optimization can affect the closing price,
20 right?

21 A. I agree that it is saying the
22 auction optimization can affect the closing
23 price.

24 Q. But it also says that "Sellers
25 will receive, subject to the terms

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2 governing their use of the Ad Exchange, no
3 less than the min CPM applied to the
4 auction."

5 Do you see that?

6 A. Yes, I see that too.

7 Q. So how, other than by adjusting
8 Google's fee for the transaction, would
9 that be possible?

10 MR. RENARD: Objection to form.

11 A. In the event that the auction
12 closes at a price lower than the reserve
13 price applied and sellers are paid at least
14 their min CPM, I agree that can only happen
15 by adjusting Google's revenue share.

16 Q. Right. And in fact it says
17 "Sellers are paid the Ad Exchange closing
18 price net of Google's revenue share but
19 will receive no less than the min CPM
20 applied to the auction," right?

21 A. Yes, I agree that's what it
22 says.

23 Q. So Google is saying there it is
24 in some cases cutting its revenue share in
25 order to make the auction work, right?

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2 within my assignment to determine how many
3 advertisers believed that statement.

4 Q. Right. And in fact, as you sit
5 here today, you have not determined whether
6 any ad buyer believed that their -- I'm
7 sorry, I lost my train of thought.

8 You said "One thing it could
9 mean to be deceived by this document is to
10 believe the sentence 'Regardless of whether
11 any adjustments are made, the winning buyer
12 will never be charged more than the bid it
13 submits.' That's an example of a way an
14 advertiser could be deceived by this
15 document, but it is not within my
16 assignment to determine how many
17 advertisers believed that statement," and
18 therefore you cannot say as you sit here
19 today that even one advertiser was deceived
20 by that statement, true?

21 MR. RENARD: Objection to form.

22 A. It is not within my assignment
23 to determine how many advertisers,
24 including whether that number was one,
25 more, or zero, believe that statement.

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2 Q. Right. And as you sit here
3 today you cannot say that even one was
4 deceived, true?

5 MR. RENARD: Objection to form.

6 A. It was not within my
7 assignment -- it was not within my
8 assignment to determine whether any
9 advertisers believed the statement, and as
10 a result it is also not within my
11 assignment to determine whether even one
12 believed that statement.

13 Q. And, similarly, not within your
14 assignment to believe -- to determine
15 whether even one buyer or even one seller
16 was deceived by the statement about
17 offsets?

18 A. I think this is getting back
19 into nuance about whether a statement in
20 isolation that withholds material
21 information is deceiving in isolation. So,
22 for example, the sentence "A buyer that has
23 received discounts on its bids may face
24 higher reserve prices in subsequent
25 transactions to offset such discounts," I

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2 and which publishers were deceived by
3 different conducts of Google. In
4 particular, it was not part of my
5 assignment to determine whether any, even
6 one advertiser or publisher, were deceived
7 by this document.

8 Q. And therefore you have not
9 determined that even one advertiser or
10 publisher was deceived by this document or
11 by DRS, right?

12 MR. RENARD: Objection to form.

13 A. Because it was not part of my
14 assignment to determine, I did not
15 determine whether even one advertiser or
16 publisher believed the false statements in
17 this document, nor whether they were able
18 to understand more than I as an auction
19 theorist was capable of understanding.

20 MS. PATRICK: Objection,
21 nonresponsive.

22 Q. Let me ask you the question a
23 slightly different way.

24 You have not determined whether
25 even one advertiser or publisher was

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2 deceived by this document about dynamic
3 revenue sharing, true?

4 A. If you could help me understand
5 how I'm not answering the question.

6 Q. I'm asking you whether you know
7 a particular ad buyer or ad seller that you
8 can name for me so the jury knows there is
9 one who was actually deceived by this
10 document. That's my question.

11 MR. RENARD: Objection to the
12 form.

13 A. I will repeat my answer. If
14 you tell me which part of the answer is not
15 clear, I will try again.

16 Q. Can you name one, sir?

17 A. I would like to finish my
18 answer to your previous question.

19 This document does not contain
20 sufficient information for me as an auction
21 theorist to understand the concept of debt,
22 and therefore I, as an auction theorist,
23 would be deceived by Google's conduct with
24 respect to DRS. Therefore, I believe that
25 any advertiser that does not employ -- I

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2 would expect advertisers or publishers with
3 less expertise in auction theory than me to
4 be deceived.

5 If you could let me know which
6 part of that doesn't answer your question,
7 I can try to change it.

8 Q. Yes. Can you identify any
9 specific ad buyer who was in fact deceived
10 by the true statements in this document,
11 Weinberg Exhibit 8?

12 MR. RENARD: Objection to form.

13 A. Maybe I can say it was not part
14 of my assignment to identify specific
15 advertisers or publishers who were
16 deceived, therefore I cannot identify a
17 particular advertiser or publisher who I am
18 certain has less auction theory expertise
19 or ability to understand this document than
20 I do.

21 Q. And therefore you cannot tell
22 the jury that you are -- that you can
23 identify even one who actually was deceived
24 by name?

25 A. Because it was not part of my

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2 had an overbidding aspect which is that the
3 winning bid was increased. And just to be
4 super clear, let me clarify that I mean
5 competition in the auction theory sense, as
6 in competing for this particular
7 impression, and not in any other way.

8 Q. Okay. And what was the
9 threshold payment rule as it pertained to
10 Bernanke?

11 A. So I don't remember exactly
12 when, but I believe the Milgrom report
13 claims that Global Bernanke switched from a
14 first price payment rule to a threshold
15 payment rule. I don't remember the precise
16 date he claims. But to be clear, I do not
17 object to whatever date he claims. I would
18 take that at face value. And a threshold
19 payment rule refers to the fact that a
20 bidder is paying their minimum bid to win,
21 whereas a first price payment rule refers
22 to the fact that a bidder is paying their
23 bid in the auction.

24 Q. Okay. And when did Bernanke
25 start?

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2 during a period when AdX was running a
3 second price variant and Bernanke was using
4 a threshold payment rule.

5 Q. Okay. And, similarly, if I can
6 direct your attention to paragraph 98 --

7 A. Of rebuttal?

8 Q. Uh-huh. You say that "Project
9 Bernanke or Global Bernanke or Buy-Side DRS
10 would have caused Google Display Network
11 advertisers to report" -- I'm sorry, let me
12 try again, rephrase.

13 In paragraph 98 you say that
14 "With a first price payment rule Buy-Side
15 DRS, Bernanke and Global Bernanke would
16 have caused Google Display Network
17 advertisers to report their true values to
18 the network when they would have been
19 better off bid shading," right?

20 MR. RENARD: Objection to form.

21 A. I just want to note it is a
22 slight misquote, but I consider the way you
23 read it to be an accurate representation of
24 the letter of the text.

25 Q. Okay. And does it follow that

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2 when Bernanke was using a threshold payment
3 rule advertisers would not have been better
4 off bid shading because bidding truthfully
5 was optimal?

6 MR. RENARD: Objection to form.

7 A. As I stated in my opening
8 report and is also commonly known within
9 auction theory, in an auction that uses
10 threshold payments, advertisers are not
11 better off bid shading.

12 Q. They are better off bidding
13 truthfully?

14 A. Just to repeat the previous
15 context for that question, in an auction
16 with threshold payments, advertisers are
17 best off bidding truthfully, that's
18 correct.

19 Q. Okay. And so that means, then,
20 that in periods without the first price
21 payment rule where instead threshold
22 payment was the norm, Bernanke and its
23 later manifestations did not injure
24 advertisers because they were presenting
25 truthful bids, right?

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2 sorry, I misspoke.

3 MR. RENARD: Same objection.

4 A. It wasn't part of my assignment
5 to determine which advertisers were
6 sophisticated or not sophisticated, and as
7 a result I don't, excuse me, I don't know
8 what particular advertisers knew or did not
9 know about Project Bernanke. What I know
10 is that Google did not disclose it and that
11 I find it deceptive.

12 Q. All right. And what you do
13 agree is that during periods where Project
14 Global Bernanke used threshold payments,
15 both sophisticated and default advertisers
16 would best respond by bidding truthfully
17 because the auction was actually truthful,
18 right?

19 MR. RENARD: Objection to form.

20 Q. I read your footnote correctly;
21 did I not?

22 A. There is a slight nuance.
23 There are parts of the footnotes you read
24 correctly, which is that when Global
25 Bernanke used threshold payments, it is in

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2 GDN advertisers' best interest to bid their
3 true value, so that is correct. The
4 question went a small step further and said
5 the auction was truthful, and I would
6 disagree with that because the auction was
7 not truthful for non-GDN bidders because of
8 RPO and DRS.

9 Q. Okay. So let me just read your
10 footnote exactly.

11 A. Can I ask, is this 349?

12 Q. No, it is 348.

13 A. 348, sorry.

14 Q. Last sentence in 348 says
15 "During periods where Project Global
16 Bernanke," and I think you must have meant
17 Project Bernanke and Global Bernanke, do
18 you think you meant both?

19 A. I believe the switch from
20 Bernanke to Global happened before Milgrom
21 claims the switch from first to threshold
22 occurred, so I don't believe there is a
23 period where non-Global Bernanke used
24 threshold periods -- payments. But if
25 there were such a period, then it would

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2 apply.

3 Q. Okay. So just to be clear, in
4 any period where a Bernanke project used
5 threshold payments, both sophisticated and
6 default advertisers would best respond by
7 bidding truthfully because the auction is
8 actually truthful, right?

9 A. Yes, that is what I wrote. It
10 looks like I would nitpick against my own
11 writing. I think there was an implied "for
12 GDN bidders" at the end of that
13 parenthetical. That would have been what I
14 assert if I explicitly wrote if I'm being
15 extra critical.

16 Q. And Alchemist used a threshold
17 pricing, not a first price payment rule,
18 right?

19 A. I forgot the question, but I
20 think I remember enough --

21 Q. Well, let me ask it again.
22 Alchemist used a first, sorry, Alchemist
23 used a threshold pricing, not a first price
24 payment rule, right?

25 A. Yes, that is correct.

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2 Q. And so the same would be true,
3 that is in a circumstance where Alchemist
4 was operative as to advertisers, they were
5 best responding by bidding truthfully
6 because that auction was actually truthful?

7 A. Basically, yes. I'm just going
8 to add some qualifiers, which is that
9 during periods where Alchemist was active
10 and using a threshold payment rule, which I
11 believe to be all of the periods that
12 Alchemist was active, GDN bidders would
13 have best responded by bidding their true
14 value into the Alchemist.

15 Q. And in those circumstances that
16 we have described where Project Global
17 Bernanke is using threshold payments or
18 where Alchemist is using threshold
19 payments, there is no deceit operating on
20 bidders as to the amount of their bid
21 because they are incentivized to bid
22 truthfully, right?

23 MR. RENARD: Objection to form.

24 A. I, again, don't believe I have
25 an opinion on that. That is a technical